

REMARKS/ARGUMENTS

Claims 19-22 are pending in the present application. Claims 19-22 are independent claims. The Examiner is respectfully requested to reconsider the rejection of the pending claims in view of the following Remarks.

Rejection Under 35 U.S.C. § 102

Claims 19-21 stand rejected under 35 USC § 102(b) as being anticipated by Canadian Patent No. 2,112,145 to Nomura et al. (hereinafter Nomura). This rejection is respectfully traversed.

In the Reply filed on July 19, 2004, Applicant presented two arguments with regard to Nomura:

- (1) Although Nomura's voiced/unvoiced judging unit 170 performs a function similar to that of evaluating noise level, the voiced/unvoiced judging unit **does not** perform this function using a decoded gain. Instead, it uses an **estimated** pitch gain.
- (2) The bad frame masking units 150 and 160 of Nomura **do not evaluate noise level**. Also, the bad frame masking units **do not** use a decoded gain **for the current frame**.

See Reply of 07/19/2004 at pages 4-5.

In the Office action of September 20, 2004, the Examiner responds to these arguments in page 4. Below, Applicant addresses the Examiner's responses as to Arguments (1) and (2).

Argument (1)

In the outstanding Office Action, the Examiner responds to argument (1) by asserting that, in page 6, lines 11-23, "Nomura teaches clearly voiced/unvoiced judging unit does uses [sic] decoding gain." See Office Action at page 4. Particularly, the Examiner asserts that the cited section of Nomura teaches, "gains of the adaptive excitation codebooks and amplitude of the speech signal, and outputs the result of decoding to a voiced/unvoiced frame judging unit 170."

Applicant respectfully submits that the Examiner's response is replying on a portion of Nomura, which is taken out of context. Specifically, page 6, lines 11-23, recites:

The speech decoder unit 140 decodes the speech signal by using the spectral parameter data, delay of the adaptive codebook having an excitation signal determined in the past, index of the excitation codebook comprising the excitation signal, gains of the adaptive and excitation codebooks and amplitude of the speech signal, and outputs the result of decoding to a voiced/unvoiced frame judging unit 170 and also to an output terminal 190.

(emphasis added).

Accordingly, this passage in Nomura discloses indicates that the gain is used by the **speech decoding unit**, not the voiced/unvoiced judging unit. Furthermore, this portion of Nomura merely discloses that the voiced/unvoiced judging unit receives the **result of decoding**, i.e., the **decoded speech**

signal. There is nothing here that even suggests that the voiced/unvoiced judging unit receives a decoded gain, let alone uses it.

Accordingly, there is no teaching or suggestion in Nomura that the voiced/unvoiced judging unit receives or uses a decoded gain to evaluate noise level.

Argument (2)

As to argument (2), the Examiner asserts, "Nomura teaches a noise detection unit evaluates [sic] the noise level based on the decoded gain of the current frame and input to the masking units 150 and 160" (Office Action at page 4). To support this assertion, the Examiner cites Fig. 1, elements 110, 150, and 160; Fig. 7; and equation 4.

Initially, Applicants point out that Nomura fails to disclose a "**noise** error detection unit." Nomura only discloses an "error detection unit" 110.

As to the error detection unit 110, Nomura discloses that its function is to "check[] whether errors are produced in perceptually important bits by channels errors and output[] the result of the check to the first switch 130." There is simply no teaching or suggestion that Nomura's error detection unit evaluates noise level.

Furthermore, the Examiner fails to cite any portion of Nomura that discloses that either of Nomura's bad frame masking units (150, 160) actually evaluates a noise level.

As to formula (4) in Nomura, Applicant respectfully submits that this equation neither decodes a gain code, nor uses a gain code of the current frame.

Nomura expressly states the bad masking frame unit 150 "derives the adaptive and excitation codebook gains according to previous frame adaptive and excitation codebook gains and rms stored in the data memory 120 by using formula (4)" (page 12, lines 19-24; emphasis added). Thus, formula (4) is not used to **decode a gain code** -- it is used to **derive a gain**. Specifically, page 14, lines 16-23, Nomura discloses that formula (4) "**derives a gain for minimizing the next error E_I .**"

Also, formula (4) in Nomura does not use the gain decoded for the current decoding period. On the contrary, Nomura teaches that formula (4) uses parameters G_{ap} and G_{ep} , which are "gains of the **previous frame** adaptive and excitation codebooks." See page 14, lines 16-23.

Accordingly, the bad frame masking units of Nomura do not evaluate noise level, and they do not use a decoded gain in a given decoding period to evaluate any type of parameter in that decoding period.

Nomura Fails to Anticipate Claims

MPEP § 2131 sets forth the following requirements for rejections under 35 U.S.C. § 102:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claims." *Richardson v. Suzuki Motor Co.*, 868 F2d 1226, 1236, 9 USQP2d 1913, 1920 (Fed. Cir. 1989).

For the reasons discussed above, Applicants respectfully submit that Nomura fails to disclose evaluating a noise level in a given decoding period using a decoded gain of the speech in that decoding period, as required by independent claims 19-22. At least for these reasons, it is respectfully submitted that claims 19-22 are allowable. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

In view of the above Remarks, the Examiner is respectfully requested to reconsider the outstanding rejection and issue a Notice of Allowance in the present application.

Should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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